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| EXAMINER |
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HAILEMARIAM, EMMANUEL

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| ART UNIT | PAPER NUMBER |
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2609

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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| 3 MONTHS | 02/07/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/783,601

Applicant(s)

CAMP ET AL.

Examiner

Emmanuel Hailemariam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/20/05</u> , <u>01/13/05</u> ____ | 6) <input type="checkbox"/> Other: ____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-13, 25, 26 and 29 - 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canova (US 2003,1037495 A1) in view of Brosnan (6977645 B2).

As to claims 1 & 13 Canova discloses a portable electronic device, comprising: (Fig. 9 a hand held computer 100,[0042]) a housing :(fig. 3-9 (100) ; a display integrated with the housing (Fig. 3- 9 (114), [0019]) ; a thumb-operable input device positioned on a side of the housing; (Fig.9 -6 (111,119) [0019],[0027]) an indicator on the display operatively associated with the thumb-operable input device (116) (Fig.9 [0024], [0038]).

Canova doesn't teach the indicator that highlights menu items.

On other hand, Brosnan teach a highlights bar (16), where a user highlights a particular one of the menu items (col.3 lines 9-15 col.4 lines 34,col. 4 lines 44-45, fig 1A (16)).

Therefore, It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Canova's handheld computer with

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Brosnan's a bar which highlight menu, because this will provide a user with a visual indicator to easily see information.

As to claim 6 , Conova as modified by Brosnan teaches wherein the thumb-operable input device comprises: a slot (Fig. 4 (119); and a bar (Fig.9 (119)) configured to slide in the slot to position the indicator on the display to highlight and/or select one of a plurality of menu items (Fig. 9 (119) [00 27]).

AS to claims 7 , Conova teaches wherein the thumb-operable input device further comprises: [0039] a plurality of notches in the slot, each of the plurality of notches being associated with one of the plurality of menu items, wherein the bar is further configured to move in the slot between the notches to position the indicator on the display to highlight and/or select the associated menu item [0024],[0042]. It would be obvious switches (notches of (110)) are associated with the menu(116) because in order to select the menu one have to use the thumb wheel (119).

As to claim 8 , Conova teaches sensor operatively associated with the bar and configured to detect movement of the bar in the slot; and a processor operatively associated with the sensor, the processor being [0027] configured to process the detected movement of the bar and move the indicator on the [0034] display between the menu items responsive to the processed movement.

As to claim 9 Conova teaches wherein the thumb-operable input device further comprises a spring mechanism, the spring mechanism being configured to reposition the bar at an end of the slot between selections of menu items [0027].

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As to claim 10 , Conova teaches wherein the thumb-operable input device comprises at least one of a fingerprint sensor, touchpad or hinged bar, wherein the indicator is configured to move between menu items responsive to upward and/or downward movement on the fingerprint sensor, the touchpad or the hinged bar ([0022], [0031]).

As to claim 11 , Conova teaches wherein the thumb-operable input device comprises a touchpad positioned on a side of the housing [0030] , [0020].

As to claims 12 , Conova teaches further comprising: a sensor operatively associated with the touchpad and configured to detect movement on the touchpad; and [0022] a processor operatively associated with the sensor, the processor being configured to process the detected movement on the touchpad and move the indicator on the display between the menu items responsive to the processed movement.[003] .

As to claims 25, 26, 29, 30, 31 and 32, give the electronic device Conova's modified by Brosnan as discussed above in claims 1, 2, 6, 7, 9 and 10, the method of operating a portable electronic device as claimed in claims 25, 26, 29, 30, 31 and 32 is inevitable.

3. **Claims 2, 14 and 18-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Conova (US 2003/1037495) in view of Brosnan (US 6,977,645) as applied to claim 1 above, and further in view of Frederiksen (US 6,570,596).

As to claims 2 & 14, Conova further teaches the thumb-operable input device comprises at least one thumb position sensor [0027] and wherein the

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thumb position sensor is configured to detect a position of a thumb on the thumb-operable input device (Fig. 9 (111,119) [0027],[0028] , [0019]).

However, Conova as modified by Brosnan does not teach the thumb-operable input device moving the indicator on the display between the menu items responsive to the position of the thumb on the thumb-operable input device.

Frederiksen teaches thumb-operable input device (i.e., navigation and selection key 10) moving the indicator on a display (3) between the menu items responsive to the position of the thumb on the thumb-operable input device (i.e., navigation and selection key 10) (Col. 2, lines 3-21;see Fig.4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made further modify the thumb-operable input device Conova as modified by Brosnan for moving the indicator on the display between the menu items responsive to the position of the thumb on the thumb-operable input device as taught by Frederiksen for the purpose of providing a user a visual indication of a selected item by the thumb-operable input device.

4. As to claim 18, the same rejection as claim 6 above.
5. As to claim 19,the same rejection as claim 7 above.
6. As to claim 20,the same rejection as claim 8 above.
7. As to claim 21,the same rejection as claim 9 above.
8. As to claim 22,the same rejection as claim 10 above.
9. As to claim 23,the same rejection as claim 11 above.
10. As to claim 24,the same rejection as claim 12 above.

11. Claims 3, 4, 5, 15, 16, 17, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conova (US 2003/1037495) in view of Brosnan (US 6,977,645) as applied to claim 1 above, and further in view of Poloniemi et al. (EP 1113385 A2, submitted by applicant).

As to claims 3, 4, 15 and 16, Conova as modified by Brosnan does not teach a thumb movement sensor.

However, Poloniemi further teaches detecting movement via fingerprint analysis for the purpose of making operation of the electronic equipment's user interface more intuitive (Figs. 1-5; Col. 1, lines 1-8; Col. 5, line 20-Col. 7, line 29).

It would have been obvious to one having ordinary skill in the art at the time the invention was made further configure the thumb movement sensor of Conova's modified by Brosnan for detecting movement via fingerprint analysis as taught by Poloniemi for the purpose of making operation of the electronic equipment's user interface more intuitive as taught by Poloniemi.

As to claims 5 and 17, Poloniemi, the thumb movement sensor being further configured to detect distortion of a fingerprint on the thumb-operable input device and wherein the processor (col.6 lines 5-15) being further configured to process the detected distortion of the fingerprint and highlight and/or select menu items on the display responsive to the detected distortion would have been obvious since Poloniemi teaches these features (Figs. 1-5; Col. 1, lines 1-8; Col. 5, line 20-Col. 7, line 29).

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As to claims 27 and 28, The same rejection applies as to claims 4 and 5 above.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Muthuswamy disclose a electronic device with improved user interface.

Kato (US 6297795 B1) disclose a small information processing apparatus.

Hawkins (US 7120473 B1) disclosure method and apparatus for controlling a Mobil device by using a pivoting input switch.

Kunihiro (5915228) disclose a terminal, and information input method.

Correspondence

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Hailemariam whose telephone number is 571-270-1545. The examiner can normally be reached on M-F 8:00am - 5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-270-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.H

12/21/06



AMARE MENGISTU
SUPERVISORY PATENT EXAMINER